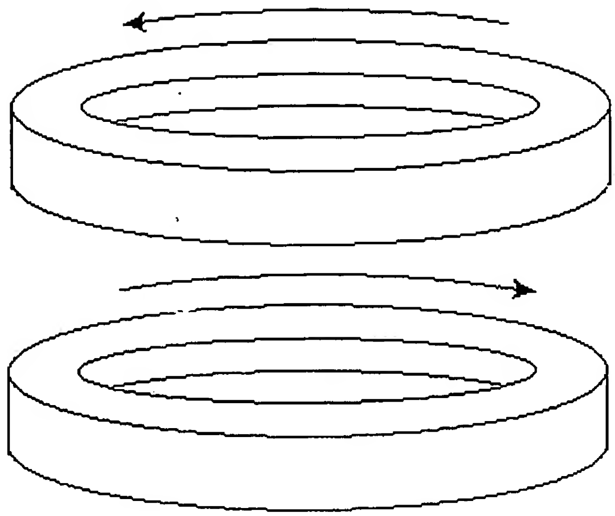

Figure 1

INVENTOR

John P. Foster

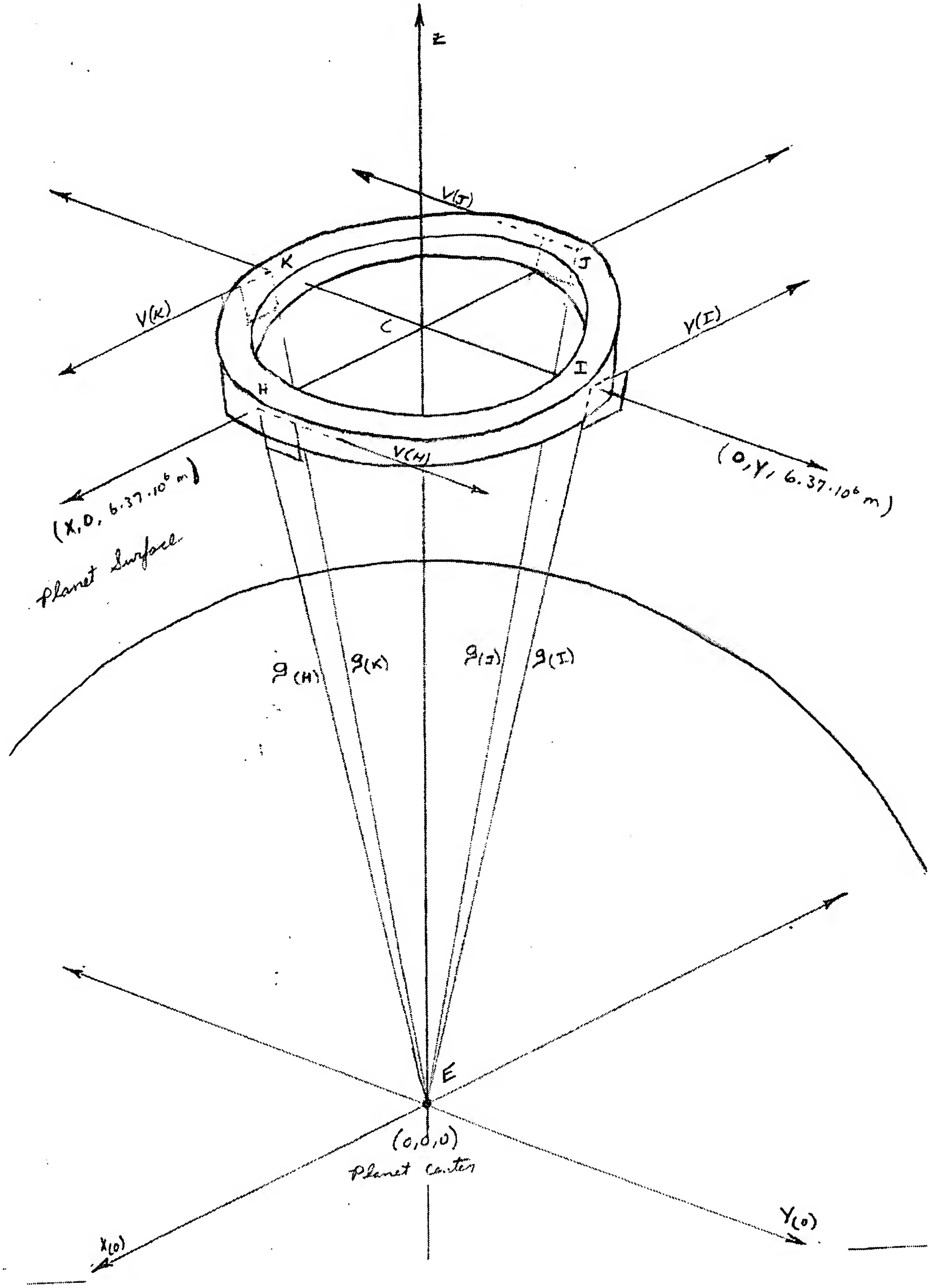

Figure 2

INVENTOR
John P Foster

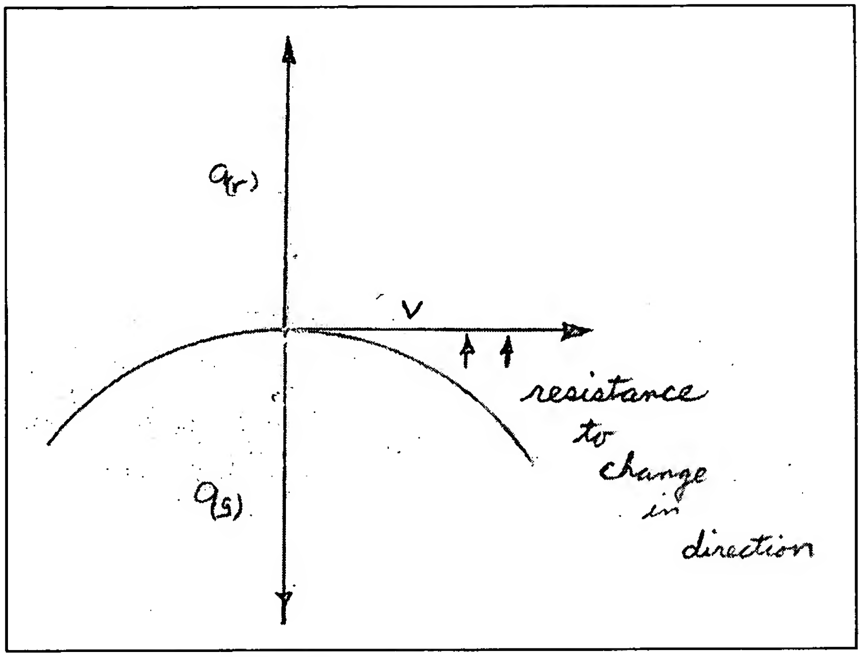

Figure 3

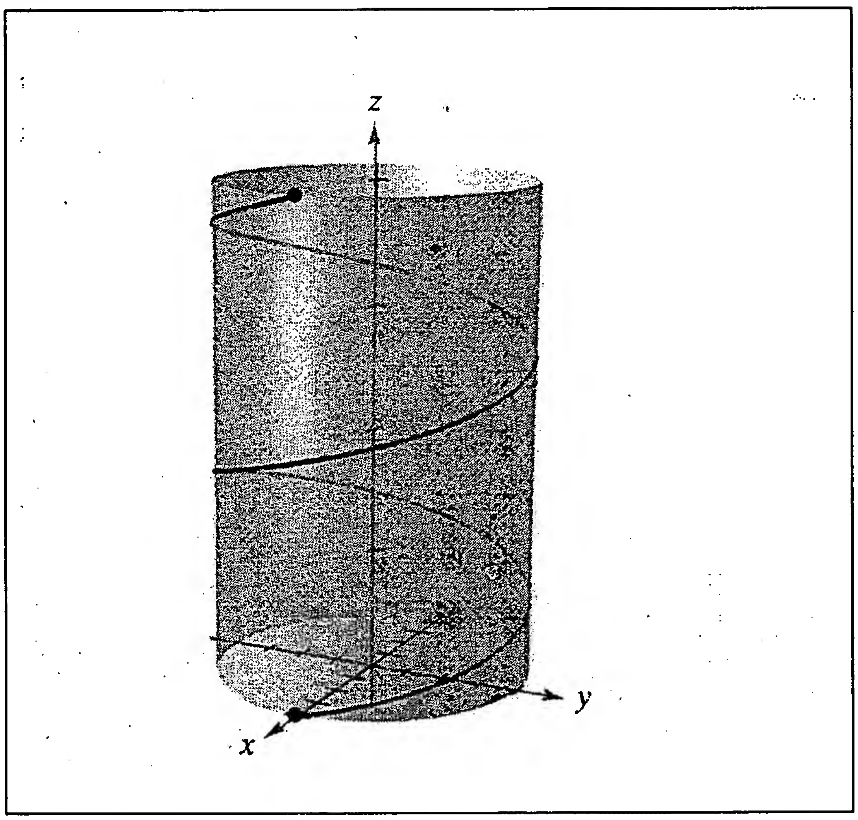

Figure 4

Inventor

John P Foster

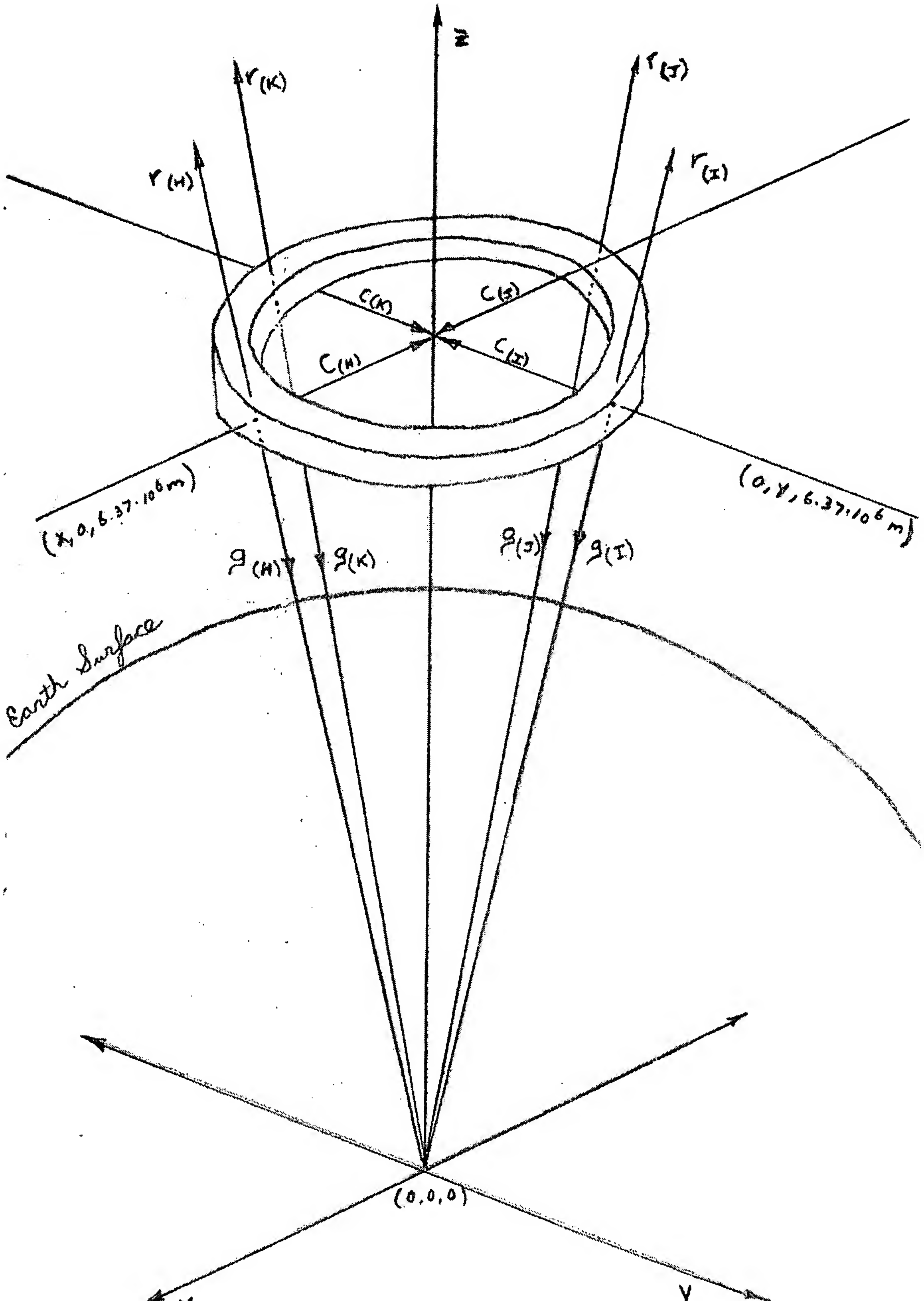

Figure 5

INVENTOR
John P Foster

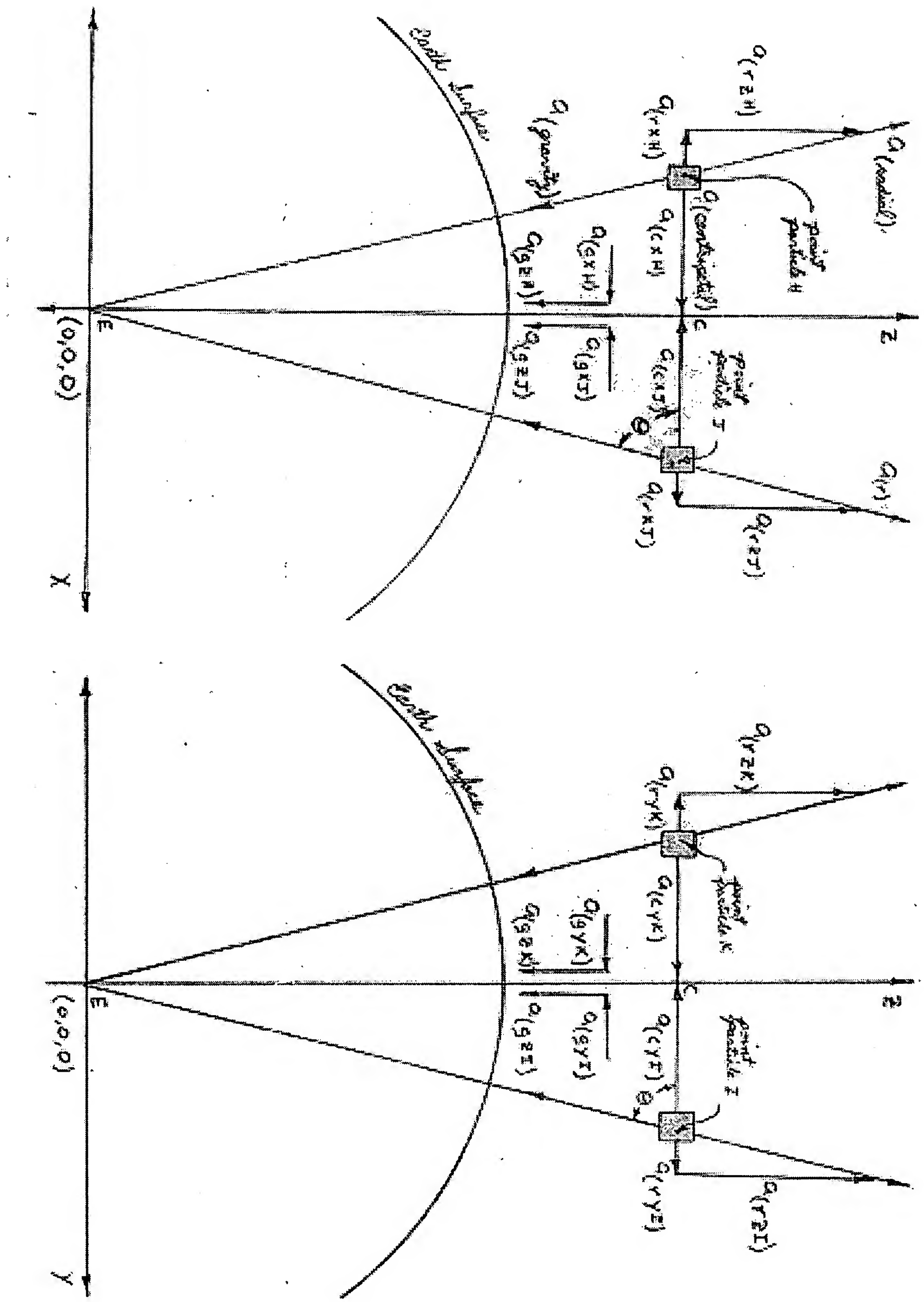

Figure 6

INVENTOR

John P Foster

$F_{(C)} = F_{(H)} + F_{(J)} + F_{(I)} + F_{(K)}$

On the x,z plane

$F_{(H)} = \frac{1}{4}m \times a_{(H)} = \frac{1}{4}m \times [a_{(rxH)}\, i + a_{(rzH)}\, k + a_{(cxH)}\, i + a_{(czH)}\, k + a_{(gxH)}\, i + a_{(gzH)}\, k]$

$F_{(J)} = \frac{1}{4}m \times a_{(J)} = \frac{1}{4}m \times [a_{(rxJ)}\, i + a_{(rzJ)}\, k + a_{(cxJ)}\, i + a_{(czJ)}\, k + a_{(gxJ)}\, i + a_{(gzJ)}\, k]$

On the y,z plane

$F_{(I)} = \frac{1}{4}m \times a_{(I)} = \frac{1}{4}m \times [a_{(ryI)}\, j + a_{(rzI)}\, k + a_{(cyI)}\, j + a_{(czI)}\, k + a_{(gyI)}\, j + a_{(gzI)}\, k]$

$F_{(K)} = \frac{1}{4}m \times a_{(K)} = \frac{1}{4}m \times [a_{(ryK)}\, j + a_{(rzK)}\, k + a_{(cyK)}\, j + a_{(czK)}\, k + a_{(gyK)}\, j + a_{(gzK)}\, k]$

Expand the equations and sum, such that component parts equal

radial acceleration $= v^2/r_{earth+alt} \times$ (ratio of sides)

Centripetal acceleration $= v^2/r_{ring} \times$ (ratio of sides)

Gravity acceleration $= (a_g) \times$ (ratio of sides)

$F_{(H)} = \frac{1}{4}m\, [v^2/_{EH}(CH/EH)i + v^2/_{EH}(EC/EH)\, k + v^2/_{CH}(HC/HC)\, i + 0\, k + (a_g)_{HE}(HC/HE)\, i + (a_g)_{HE}(CE/HE)\, k]$

$F_{(J)} = \frac{1}{4}m\, [v^2/_{EJ}(CJ/EJ)\, i + v^2/_{EJ}(EC/EJ)\, k + v^2/_{CJ}(JC/CJ)\, i + 0\, k + (a_g)_{JE}(JC/JE)\, i + (a_g)_{JE}(CE/JE)\, k]$

$F_{(I)} = \frac{1}{4}m\, [v^2/_{EI}(CI/EI)\, j + v^2/_{EI}(EC/EI)\, k + v^2/_{CI}(IC/CI)\, j + 0\, k + (a_g)_{IE}(IC/IE)\, j + (a_g)_{IE}(CE/IE)\, k]$

$F_{(K)} = \frac{1}{4}m[v^2/_{EK}(CK/EK)j + v^2/_{EK}(EC/EK)\, k + v^2/_{CK}(KC/KC)\, j + 0\, k + (a_g)_{KE}(KC/KE)\, j + (a_g)_{KE}(CE/KE)\, k]$

$F_{(C)} = \frac{1}{4}m\{[0i+0j]+4[v^2/(r_{planet}+alt)(EC/(r_{planet}+alt)\, k]+[0i+0j] + 0\, k + [0i+0j] + [4\,(a_g)\, CE/(r_{planet}+alt)k]\}$

$F_{(C)} = m\, [v^2/(r_{planet}+alt) + a_g]\, (EC/(r_{planet}+alt)\, k = m_{particle\ stream}a_{(z)} =$ **VERTICAL THRUST**

$a_{(z)} = [v^2/(r_{planet}+alt) + a_g]\, k \times \sin(\theta)$

where $\sin(\theta) = opp/hyp = [(r_{doughnut\ center})/(r_{point\ particle}) \approx \sin(90^0) \approx 1$

Therefore; $\mathbf{a_{(z)} \approx v^2/r + a_g}$

Figure 7

Inventor
John P Foster

Theoretic example, Thrust by Gyroscopic Lift with a Particle Accelerator:

50 milligrams of ionized particles, continuously traveling along a circular path at 60% velocity of light should provide 2.54. x 10^5 Newtons of upward thrust.

$F_{particles} = m_{particles} \times a_z$, m measured in Kg

$F = m \times [v^2/(r_{planet} + alt) + g]$

$F = 50 \times 10^{-6} \times [(2.998 \times 10^8 \times .60)^2 / (6.371 \times 10^6) - 9.821] = 253{,}938$ N

Figure 8

Theoretic example, Vertical Acceleration of Ship with Particle Accelerators

$F_{particles} + F_{gravity} = F_{ship}$,

$F_{particles} + F_{gravity} = m_{ship} \times a_{ship}$

$F_{particles} + (m_{ship} \times g) = m_{ship} \times a_{ship}$

$[F_{particles} + (m_{ship} \times g)] / m_{ship} = a_{ship}$

$[(2 \times 2.54 \times 10^5) + (40 \times 10^3 \times {}^-9.821)] / (40 \times 10^3) = 2.879$ m/s^2

2.879 m/s^2 / 9.821 m/s^2 = .2931 g's

Figure 9

INVENTOR
John P Foster

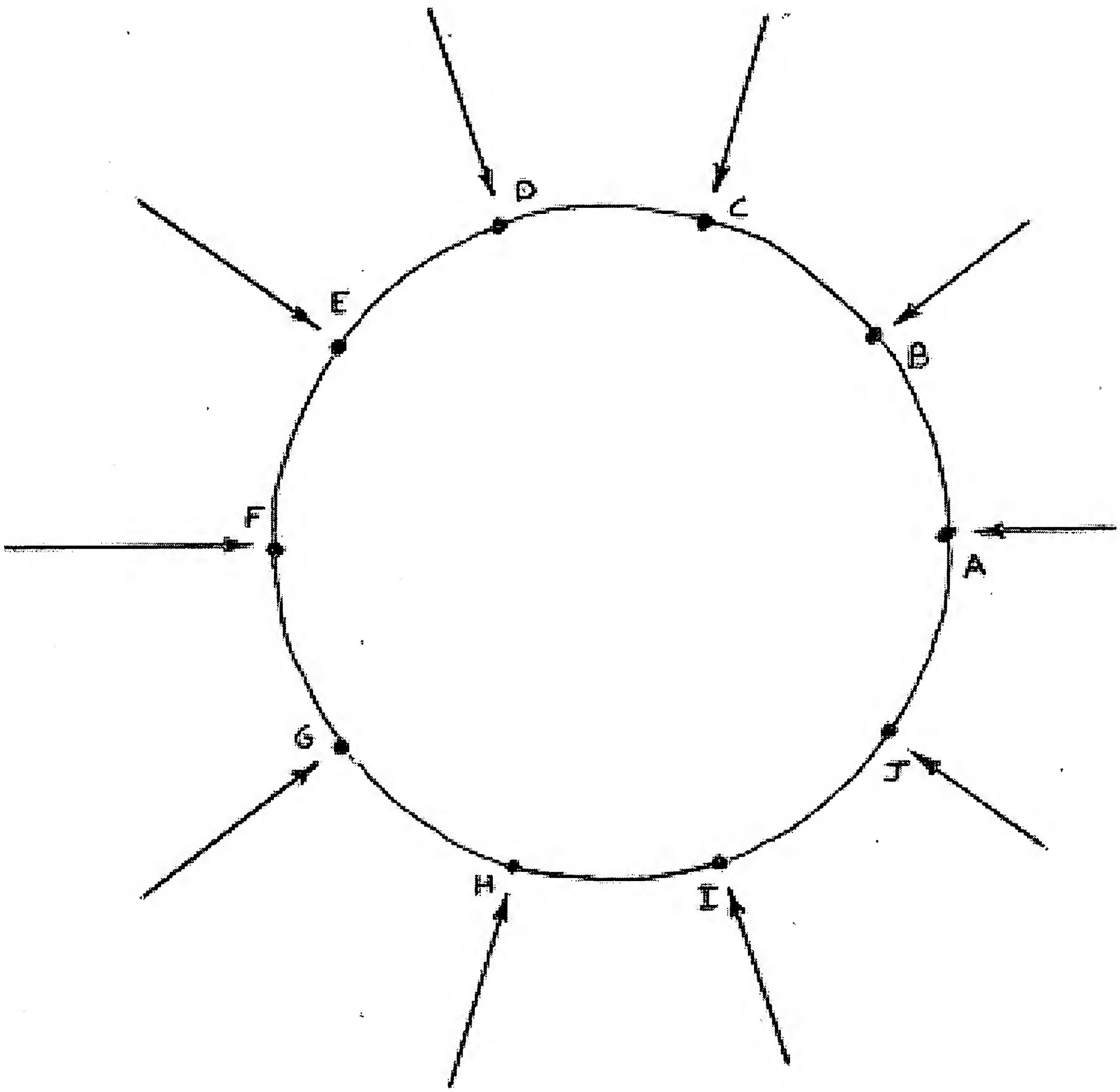

Figure 10

Inventor
John P Foster

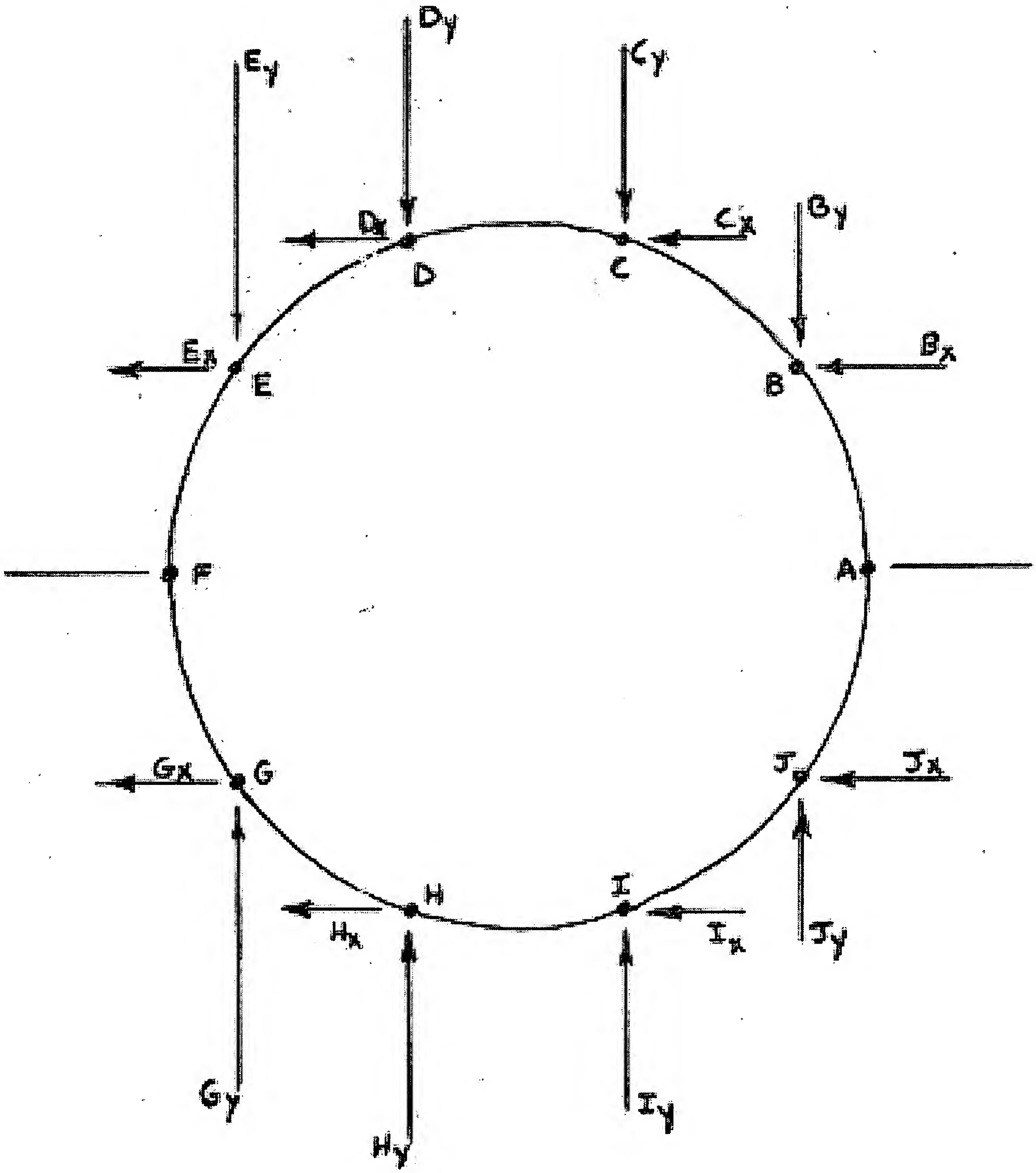

Figure 11

INVENTOR
John P Foster

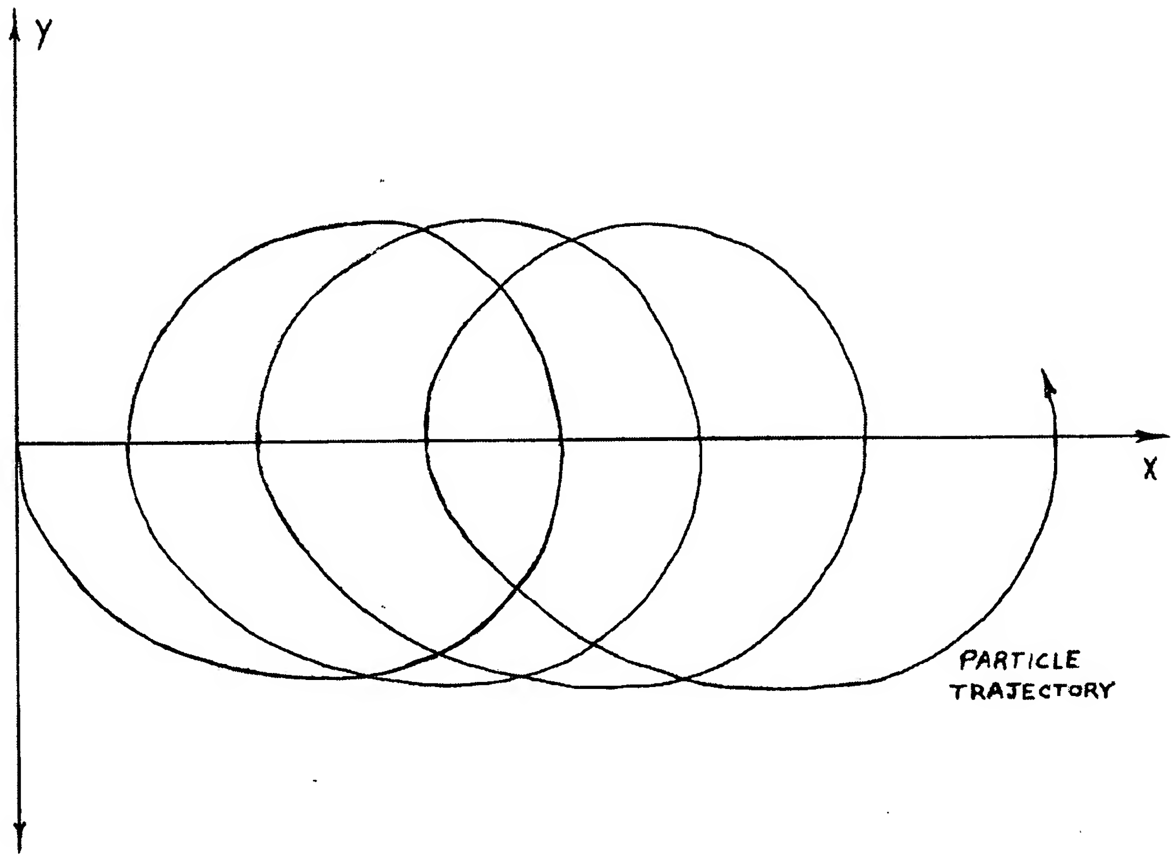

Figure 12

INVENTOR
John P Foster